

Content Information

Summary of: A Recommendation for Content Information, OCLC-RLG Working Group on Preservation Metadata For: CUL Metadata Working Group, 15 February 2002

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Caveat: This summary was produced for discussion purposes. Every effort was made to accurately quote/represent the content. Double quotation marks indicate direct quotes from OAIS in the Content Information document.

Bold indicates that there is a table of metadata elements associated with that component of content information.

Content Data Object	a bit stream or set of bit streams
Representation Information	“Metadata that translates the bit stream(s) into accessible, meaningful knowledge” OAIS: Structure Information: “the format, or data structure concepts, which are applied to the bit sequences and that in turn result in more meaningful values such as characters, pixels, arrays, tables, etc.” -systems Semantic Information: ‘imparts higher level meanings to the structural components of the Content Data Object’ -humans
Content Data Object Description	‘describes object itself’
Environment Description [repeatable]	‘describes resources needed to translate bits’
Software Environment	‘collection of digital objects, e.g. IE, Win 95, that when combined enable access to the content...’
Rendering Programs	First transform then display/access content
Operating System	‘software program required to operate the Rendering Programs’
Hardware Environment	‘physical objects – [e.g.] ...monitors, microprocessors, and memory chips – that are necessary to operate the software environment’
Storage	‘any specific storage technology...to access e.g. CD-ROM
Computational Resources	‘logical capacity to process the bit sequences...’
Peripherals	‘...any additional devices which assist in rendering, displaying or accessing’

Content Data Object Description [C = CEDARS; N = NLA; NL= NEDLIB; WG = Work Group]

Underlying abstract form description	C	Human readable description of underlying abstract form of content data object
Structural type	N	‘e.g., still image, sound, text, database, Web document...’
Technical infrastructure of complex object	N	‘Internal structure of complex objects’
File description [inc. type-specific]	N	‘technical specifications of the file(s) comprising ...object’ e.g., GIF: ‘dimensions in pixels, resolution, color palette, compression algorithm’
Installation requirements	N	‘any specialized procedures needed’, e.g. zip
Size [possibly sub-elements]	W	Bytes e.g., sub-elements: compressed and uncompressed size
Access inhibitors	N	e.g., ‘encryption, watermarking, password protection’
Access facilitators	N	e.g., ‘time markers in audio or video files, navigational links in a hypertext document’
Significant properties	W	Properties that must be preserved e.g. intellectual content but not look ‘n feel [subject to change over time]
Functionality	W	Functional or look ‘n feel of current instantiation
Description of Rendered Content	W	e.g., clarify ASCII numeric file as list of temperature readings from specified experiment presented as tab-

		delimited columns
Quirks	N	Loss of functionality due to preservation processes, archival procedures e.g. broken links [possibly changes since creation not since ingested]
Documentation	W	'necessary/useful for display and/or interpretation'
Location of documentation	W	e.g. URL

Rendering Programs [if minimum or recommended, values in another element with Environment Type values]

Transformation Process	C	'description of implementation (or a software mechanism) to automatically transform the byte stream...into an instantiation of the Underlying Abstract Form' e.g. unzip
Transformer Engine	C	Specific software engine e.g. WinZip
Parameters	C	'runtime parameters' e.g. output directory for unzipping
Input Format	C	e.g. ZIP files with .zip extension [may : File Description]
Output Format	C	Format produced by transformer [: D/AA input]
Location	W	Of transformer engine e.g. URL
Documentation	W	For operation/use of transformer engine
Display/Access Application	W	'software program capable of displaying the [object] or accessing its intellectual content'
Input Format	C	Format of objects D/AA works on [: transformer output]
Output Format	C	Expected output [compatible with Description of Rendered Object]
Location	W	Location of D/AA
Documentation	W	'necessary/useful for operation/use of the D/AA'

Operating System

OS Name	NL	'name/designation of software platform upon which Rendering Programs operate'
OS Version	NL	e.g. Windows 3.1
Location	W	'location of working copy of OS...'
Documentation	W	e.g., glossary, user/s manual...

Computational Resources

Microprocessor requirements	NL	'...specifications necessary to operate...'
Memory requirements	W	'...memory resources to operate...'
Documentation	W	'...'necessary/useful for operation/use of Computational Resources'
Storage information	N	'...permanent resources necessary for operation...' e.g. MB
Documentation	W	'...necessary/useful for operation/use of storage devices'
Peripheral requirements	NL	'...additional equipment needed to render/display [object]'
Documentation	W	'...necessary/useful for operation/use of Peripherals'
Location	W	'location of physical devices to render [object]'